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09/904,585	07/16/2001	Yehoshua Yeshurun	YESHURUN=3A	3898

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EXAMINER

GUARRIELLO, JOHN J

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 12/18/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/904585

Applicant(s)

Yeshurun et al.

Examiner

John Guarriello

Group Art Unit

1741

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-13 is/are pending in the application.
- ☐ Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-13 is/are rejected.
- ☒ Claim(s) 13 is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
  - ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). #3, 5
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 3 and 4, it is not clear what is encompassed by the phrase “layer extending slanted relative the expected trajectory” since this can mean any number of angles in relation to a plane, or a perpendicular aspect of the plane regarding the “oncoming firearm projectile”. Further, it is the Examiner’s position that the preamble of the claim is directed to “an armor assembly”, which is being interpreted as a laminate or composite with layers of materials or components.

In claim 5, line 2, it is not clear what is encompassed by the phrase “heavy duty cloth material” except as noted on page 4, (where **Kevlar** or

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**Spectra** is stated with “various epoxy materials”), of the specification lines 3-5. However, it is still not clear what the phrase on page 4, line 3 “and the like” encompasses regarding the meaning of the above phrase, “heavy duty cloth material”.

In claim 9, line 2, it is not clear what is encompassed by the phrase “heavy duty cloth material” except as noted in claim 5. Further, it is not clear what is encompassed by the term “soaked”; it is the Examiner’s position that this could mean embedded or impregnated, especially since the specification on page 4, lines 6 and 7 provide little or no specificity about the degree of “soak”.

In claim 10, line 3, it is not clear what the phrase “oncoming firearm” encompasses. This appears to be inconsistent with claim 1 which has the term **projectile** after “firearm”. The missing term that should come after “firearm” appears to be **projectile**.

In claim 13, line 2, it is not clear what the term “playable material” encompasses. The specification describes this term on page 3, line 10; page 4,

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line 3; page 7, line 6; it is the Examiner's position that the term appears to be **pliable**.

### *Specification*

17. The disclosure is objected to because of the following informalities: the term "playable" appears to be incorrect and seems to imply the term **pliable**, see pages 3, 4, 7. On page 2, line 14, the term "low" in front of "toughens" does not make any sense, is this a typographical error, and if so, what is the correct term that modifies "toughens"? The same problem appears on page 4, line 16 "low toughens", and on page 5, line 18, "low toughens material"?

Appropriate correction is required.

### *Claim Objections*

18. Claim 13 is objected to because of the following informalities: in claim 13, line 2 the term "playable" appears to be incorrect. This term appears to be **pliable**. Appropriate correction is required.

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***Claim Rejections - 35 USC § 102***

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 5, 7, 13 rejected under 35 U.S.C. 102(b) as being anticipated by Perry 4,901,622.

Perry describes an armour construction (which corresponds to the claimed composite) of an outer layer and an inner layer, (see abstract; column 1, lines 18-25). Perry describes when a projectile penetrates at an oblique angle the outer layer is incident upon the inner layer, the inner layer can move laterally relative to the outer layer (which layer corresponds to the claimed invention of a layer slanted relative the expected trajectory of a projectile) the composite materials can be aramid, polyamide among others, (column 2, lines 1-10). Perry describes the laminate with a ceramic material which

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corresponds to the claimed essentially brittle material and claimed front layer,(column 2, lines 11-14). Perry describes the laminate may be formed as one or more sandwiches of a ceramic between fabric layers, (column 2, lines 18-24). Perry describes the essential limitations of the claimed invention.

Claims lack novelty.

20. Claims 1-4, 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2308 401.

GB'401 describes a bullet proof window pane (which is transparent) and is composed of three laminated window panes with at least one laminated window pane positioned obliquely relative to the adjacent panes having the effect of deflecting the path of a projectile, (see abstract; page 3, paragraphs 1-3; page 4, paragraph 1). GB'401 describes the glass panes which can be brittle since there are layers of glass with gas or liquid filled gaps, (page 2, lines 1-13). GB'401 describes the essential limitations of the claimed invention. Claims lack novelty.

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21. Claims 1-4, 7-8, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Gosnell 3,380,406.

Gosnell describes transparent armor material (which corresponds to the claimed armour assembly as a laminate or composite), (see abstract). Gosnell describes lightweight armor with laminating glass or other high modulus transparent materials with a polymer binder, (column 1, lines 35-38). Gosnell describes thin plates of high modulus material, corresponding to glass or other material, disposing them within the composite in such a way that at least one major plane surface is at an acute angle to the outer surface of the composite, which corresponds to the claimed layer slanted relative the trajectory of the projectile, (column 1, lines 40-53). Gosnell describes any glass or other transparent high modulus material such as ceramics, corresponding to the claimed brittle material, can be used, (column 3, lines 14-18). Gosnell describes the essential limitations of the claimed invention. Claims lack novelty.



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***Claim Rejections - 35 USC § 103***

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gosnell 3,380,406 in view of Harpell et al. 5,362,527.

Gosnell as above in paragraph # 21 with the difference that it is silent about the heavy duty cloth material.

Harpell describes a flexible article which can be used as ballistic resistant body armor which corresponds to the armor assemble of the claimed invention, (see abstract). Harpell describes a composite with layers which are in disalignment with sandwiched planar bodies which corresponds to the plurality of armor elements arranged in a serrated layout, (see abstract; Column 6, lines 60-68). Harpell describes layers from fibers which may be coated which corresponds to the heavy duty cloth material which is soaked of

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the claimed invention, (column 9, lines 54-58). Harpell describes cover layers and backing layers which would correspond to the claimed front layer and backing layer, (column 22, lines 36-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the coated or soaked fabric of Harpell in Gosnell motivated with the expectation that the penetration resistance would be improved as noted in Harpell, (column 24, lines 33-65).

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Guarriello whose telephone number is 703-308-3209. The examiner can normally be reached on Monday to Friday from 8 am. to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris, can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John J. Guarriello:gj

Patent Examiner

December 9, 2002



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